

Money Market Instruments and Economic Growth in Nigeria

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Abstract

Effect of money market instruments on economic growth of Nigeria from 1993 to 2022 was investigated in this study. Research design adopted for this study is ex-post-facto. Data were obtained from Central Bank of Nigeria (CBN) Statistical Bulletin to estimate the model. Multiple regression approach was employed to analyse impact of money market instruments on economic growth in Nigeria for the period of the study. From the empirical result obtained, the study conclude that money market enhanced development in Nigeria. It is recommended that CBN create appropriate monetary and fiscal measures which would develop money market for promotion of productive activities and investment thereby improve Nigeria development.

Keywords: Gross domestic product, Money market, Treasury bills, Certificate of deposit, Commercial paper

JEL Classification: E51, O47

1. Introduction

There is symbiotic relationship in growth and development of an economy and growth and development of the financial sector. This is because financial sector acts as a conduit pipe to mobilize funds from the investing sectors and channel it to the production units of the economy. A vibrant, developed and efficient money market will promote an efficient monetary policy. Money market facilitates continuous process in arranging asset portfolios for savers, mitigates business liquidity through provision of working capital requirements (Iwedi & Igbani, 2015). Money market helps in the promotion of economic growth and can be use to finance government budget and deteriorating balance of payment (Pavtar, 2016). In addition to the above, a vibrant money market can be used to promote active monetary policy of the government through Central Bank monetary policy tools. Where money market is well developed, there will be progress in financial intermediation process, which will increase

disbursement of fund by the financial sector to the economy for production thereby improving the country's standard of living (Uruakpa, 2019). However, little or nothing is mentioned about money market in Nigeria as many believed money market has failed to achieve the purpose of its establishment in Nigeria, for this reason, attention is directed to capital market as a result of capital market contribution to economic development. It is this gap in literature this study aimed to fill.

2. Literature Review

The money market instruments refer to those securities in money market. On a conceptual basis, the market for central bank money instruments are Treasury Bills, Certificate of Deposit, Commercial Papers, Banker's Acceptances and Banker's Unit Fund are designated as money market instruments. These instruments traded in the money market are those which the Central Bank of Nigeria has introduced over the years as circumstances demanded (Faith *et al*, 2020). One of the objectives of Central Bank of Nigeria in establishing the money market facilities in Nigeria is to enhance the effective monetary management which a well-developed money market would provide the monetary authorities (Okwu *et al*, 2016). The Treasury bill referred to debt obligation of the federal government which is considered to be free of default risk. Treasury bill is short-term instrument issued by the Federal Government of Nigeria (FGN) through the apex bank (CBN) to finance its development project. Treasury bill is also used to finance government budget deficit (Bello, 2018). Certificate of deposit is one of the investment instruments in the money market. It is a fixed deposit instruments usually offered by financial institutions such as deposit money banks, credit thrifts and unions. The amount of interest earned depends on a number of other factors such as current interest rate, how much is invested, maturity period and policy of the bank where the money is deposited (CBN, 2017). Proceeds realized from certificate of deposit enable bank to expand loan facilities to their customers which the customers utilized in production of goods and services (Igbinsosa & Aigbovo, 2015). Commercial paper is money market instrument. It is issued by a listed company to raise fund in order to finance its operations. Commercial paper is similar to banker acceptance except that these securities are issued directly by company and payment at maturity is not guarantee by a bank. A commercial paper is a short-term unsecured promisory note issued by a company at a discount to an interested investors for cash for numbered period of time (Singhani *et al*, 2016). Commercial papers carry low default risk (Andrew & Deborah, 2015).

Growth is a gradual and steady change in the long-run which comes about by a general increase in the rate of savings which leads to increase in investment. This will make the current level of goods and services produced in an economy to be higher than previous production (Uwakaeme, 2015). Schumpeter (1911) was the first to relate banking

system explicitly to economic growth in a functional sense. Schumpeter stated that, financial institutions play crucial role in economic growth as bank credit must be available in sufficient number to enable entrepreneurs embark on production. This view was supported by Haley and Schall (1973), their study affirmed that, provision of credit by financial institutions to entrepreneurs will promote economic growth through efficient and reliable payment system, mobilization of savings, allocation of credit and diversification of risks. They also argued that financial deregulation will increase deposit to be made with deposit money banks, this will enable deposit money banks to increase amount of credit to be granted and in the process, there will be increase in development. This is because increased credit availability results in more credit allocations which leads to higher investment and growth. Uruakpa (2019) stated that, money market is of importance when considering liquidity and communication of government economic policy and in so doing, promotes economic growth of a nation.

On the theory, the Supply-Leading Theory propounded by Schumpeter in 1911 is one of the major theories that emphasize on financial market. According to the supply-leading paradigm, the financial market drives economic expansion. Higher levels of savings and investment are made possible by the existence and growth of the financial market, which also improves the effectiveness of capital accumulation. This theory asserts a well-developed financial institution will foster overall economic efficiency, expand capital accumulation, reallocate resources from traditional (non-growth) sectors to contemporary growth-inducing sectors, and foster a skillful entrepreneurial response in these contemporary sectors of the economy. The principle is grounded on the idea that no exchange between economic players is required if transaction, information, and monitoring costs were sufficiently high. The financial institutions and markets that make up the financial sector were created as a result of these desires. Akinwale and Obagunwa (2020) noted that money market leads to economic growth, which implies that improvement in the efficiency of capital accumulation or an increase in the rate of savings enhances financial intermediation which, in turn, leads to economic growth. These studies support the supply-leading theory, including Marlyse (2018), Iwedi and Igbani (2015), Pavitar (2016), and Akinwale and Igbani (2018). Supporters of the supply-leading theory specifically contended that as entrepreneurs gain new access to supply-leading funds, their expectations rise and new opportunities/horizons materialize. This, they claimed, fuels economic growth because access to private sector credit, a key sign of the financial sector's deepening, fuels expectations and opportunities. Nwakobi *et al* (2019), stated that financial deepening does not significantly affect economic growth; rather, the question is whether as the economy expands, more financial institutions, financial products, and innovations enter the market in response to an increase in demand for financial services. One key argument

against the supply-leading theory also centers on the prospect that the rise of the financial sector could impede economic expansion by increasing volatility and discouraging risk-averse investors from making investments. Financial innovation, in particular, permits risk mitigation and may lower precautionary savings and investment, slowing development. A strong financial intermediation promotes economic growth by facilitating savings mobilization, trading facilitation, and risk diversification. These crucial services encourage resource allocation that is more effective, the rapid accumulation of human and physical capital, and a faster pace of technical innovation, all of which eventually result in more rapid and sustained economic growth.

Gurley and Shaw developed the theory of financial intermediation in 1960. The theory of financial intermediation examines how financial intermediaries influence the economy, how they serve certain purposes, and how government actions affect them. Financial intermediaries are important in ensuring progress by supplying financial commodities (Fama, 1980). The premise of the financial intermediation hypothesis is that there are no discriminatory fees, no transaction costs for information acquisition, and no single participant can have an impact on the prices and placement/borrowing conditions. It is further claimed that entrepreneurs have inside knowledge about their own investment seeking finance and that investors frequently borrow with collateral. Orenuga and Oyedokun (2022) stressed that intermediaries do away with the need for investments to be self-financed in order to support the financial intermediary theory. Financial institutions, in particular, enable risk-averse savers and business owners to store deposits rather than liquid (but unproductive) assets by providing liquidity. Financial institutions can then use the money they have raised to invest in productive capital. The financial intermediation theory is criticized for being overly focused on financial institution functions that are no longer essential in an established financial system (Okpe, 2013). Additionally, there is too much focus in financial intermediation on the importance of intermediaries in minimizing the frictions associated with transaction costs and asymmetric knowledge, even though these elements may have formerly been fundamental to intermediaries as a whole. Theory of financial intermediation is pertinent in this research because it highlights roles played by intermediation in mobilizing, directing, collection, and raising investment in the economy. By increasing their efficiency and broadening their roles, financial intermediaries help the economy to grow.

Wicksell introduced the loanable fund theory of interest in 1893. The loanable fund theory, which is neo-classical in nature, describes how the supply and demand for loanable funds or credit impact rate of interest. According to the notion, the rate of interest is the "price of credit," which depends on the supply and demand for money. Loanable funds theory is based on the assumptions that: resources in the economy are

fully utilized (Pal, 2018), also, prices are constant, and the nominal and real rate of interest are the same (David; 2018). Loanable funds theory for a long time had been used in the determination of interest rate. It is applicable in explaining term structure of interest rate. Purchase of durable consumer items is the customers' need for loanable funds, according to Evans and Marshall (2006). They will borrow more if the interest rate is lower. As a result, the demand curve for loanable funds for consumption is likewise in decline. In addition, money is required so that it can be kept in unused or liquid cash balances. Akarara and Eniekezimene back up this theory (2018). They claimed that the theory of loanable funds is an equilibrium comparative statistical model that employs supply and demand curves to determine the equilibrium price, which is the credit cost, which is the interest rate denoted by the variable "r". They added that significance of hoarding of funds in liquid form as idle cash balances is recognized as a factor determining demand for funds and takes into consideration bank credit on the supply side. Keynes (1936) has criticized loanable funds theory on the ground that the interest rate cannot be influenced by savings decision as these are consequences of the investment decisions and therefore, they cannot condition the supply of liquidity. In relation to the study, loanable fund theory of interest is very important in that where the interest rate is high, investor will not be willing to borrow as their cost of production will be high and this will reduce their income and profit to be earned from investment/production. If interest rate is low, this will encourage entrepreneurs to borrow as cost of production will come down.

Empirically study by Ayuba and Khan (2019) looked at the long-term relationship between Nigeria's domestic debt (treasury bills) and the expansion of the country's fiscal policies from 1981 to 2013. The Auto Regressive Distributed Lag (ADL) Approach and Narayan's Bounds Test were used in the investigation (2005). The results showed that while domestic debt (treasury bills) negatively impacted the economy during the study period, they had a beneficial impact on total government revenue. Okwu et al (2016) examined effects of treasury bill on economic development in Nigeria from 1980 to 2015 using pertinent econometric methodologies. Real gross domestic product (RGDP) was utilized in the study as a proximate for economic growth, and domestic debt (measured by Treasury bills), debt servicing costs, public spending, and bank lending rates were used as explanatory factors. The findings demonstrated that while debt service costs had a considerable negative impact on RGDP, domestic debt (treasury bills) had both short- and long-term positive effects. The study also showed that government spending and bank lending rates were insignificant in explaining changes in economic development in Nigeria over the study's time frame.

Akarara and Eniekezimene (2018) looked into how particular money market instruments affected the expansion of the Nigerian economy. The study obtained data from the Central Bank of Nigeria statistical bulletin from various years up to 2017. The study used the ARDL Bound Testing (Auto-regressive Distributed Lag) approach to cointegration. With the exception of certificates of deposit, which have an inverse relationship with economic growth in the long run, the results show no evidence of convergence among the variables in the long run while demonstrating that money market variables are positively related to the rate of economic growth in both the short and long terms. Andrew and Deborah (2015) examined the evolution of money market operations and economic viability in Nigeria from 1981 to 2011 utilizing the multiple regression technique, Pearson correlation coefficient, and ANOVA. The study's empirical findings showed that there is a significant and positive linear link between the gross domestic product (GDP) and the money market instrument known as the certificate of deposit.

Faith *et al* (2020) examined effects of particular money market products on economic growth, including Treasury bills, CDs, commercial paper, and development stock. The analysis used data from 1989 to 2019 from the National Bureau of Statistics (NBS) and the Central Bank of Nigeria statistical bulletin. Multiple regression and the Granger Causality test were used in the study to examine the data. The study discovered that while commercial papers and Treasury bills have a favorable link with the gross domestic product (economic growth), their impact is short-lived. Etale and Ayunku (2017) investigated the relationship between Nigeria's money market and economic expansion. Data from secondary sources for the years 1989 to 2014 were analyzed using the Augmented Dickey-Fuller (ADF), unit root test, Ordinary Least Square (OLS) multiple regression, and Granger Causality test using economic software called E-view. The results showed that commercial paper has a favourable and considerable impact on Nigeria's economic growth. Using Ordinary Least Squares, Ndugbu *et al* (2016) investigated the relationship between money market instruments and bank performance in Nigeria (OLS). The analysis of findings showed that while bankers' acceptance had a considerable negative effect on performance of banks, treasury bills, commercial papers, and Federal Government Bonds (FGB) had a positive effect.

Obi (2021) used time series analysis to examine the relationship between Nigeria's money market instruments and economic growth from 1981 to 2019. Real gross domestic product (GDP), Treasury Bills, Certificates of Deposit, Commercial Paper, and Banker Acceptance were pertinent variables for which data were sourced. Johansen cointegration test, Augmented Dickey Fuller (ADF), and error correction mechanism (ECM) were adopted. According to the research results, money market instruments and economic growth in Nigeria have a favorable, significant relationship. Ishola *et al*

(2021) investigated impact of money market instruments on economic growth in Nigeria using secondary data sourced from Central Bank of Nigeria statistical Bulletin and National Bureau of Statistics. To analyze the data gathered for the years 1990–2020, the study used the Unit Root Test, Ordinary Least Square (OLS), multiple-regression, and Granger causality test. The study came to the conclusion that while commercial papers, Treasury bills, and Treasury certificates have a positive link with GDP, their long-term impact is negligible. However, over time, banker's acceptances and certificates of deposits have a positive and considerable impact on GDP. In contrast, there is no discernible short- or long-term impact of development stock on GDP and no causal link between the two.

3. Methodology

This study adopted *ex-post facto* research design and covered the period of thirty (30) years starting from 1993 to 2022. Secondary data were extracted from the Central Bank of Nigeria Statistical Bulletin and Nigerian Bureau of Statistics (NBS). Time series annual data for the period of thirty (30) years was employed for the study. Data was analyzed using econometric technique of Ordinary Least Square (OLS) of multiple regression analysis for the aggregate model. F-statistics was used to assess the combined effect of the explanatory variables on the criterion at 5% level of significance.

The model is specified below to show the functional and conceptual relationship between the dependent variable and the independent variable. This study expected that the independent variables i.e money market instruments would enhance economic growth. It is therefore expected that money market instruments would determine economic growth. The dependent variable which is economic growth is measured with gross domestic product (GDP) while the independent variables of money market instruments is measured with Treasury Bills (TB) Certificate of Deposits (CD) and Commercial Paper (CP).

Given the nature of this study, Ordinary Least Square (OLS) was adopted. The model was also adopted a similar work by Etale and Ayunku (2017). The model adopted was derived from a single equation:

$$Y = f(X) \dots\dots\dots 1$$

In which Y is the dependent variable while X is the independent variable. Equation 1 brought about equation 2 which expressed below as:

$$GDP = f(TB,CD,CP) \dots\dots\dots 2$$

Where: GDP = Economic growth which is measured with GDP rate, TB = Treasury bills, CD = Certificate of deposit, CP = Commercial paper, The combination of equation 1 and equation 2 constitute our empirical model which is given below:

$$GDP = \beta_0 + \beta_1 TB + \beta_2 CD + \beta_3 CP + \mu_t \dots \dots \dots 3$$

β_0 = is an intercept with betokens the value of Y when the explanatory variables are equal to zero, β_1 , β_2 , β_3 = Parameters estimate for TB, CD, CP which betokens the change in Y that is caused by a change in X , μ = stochastic or error term, and t = number of years

The apriori Expectation is that $\beta_1 - \beta_3$ are expected to be greater than zero and positively signed. The model above contains (GDP) economic growth as dependent variable while other variable in the model are independent variables.

4. Results

Data collected were analyzed and interpreted through the use of descriptive statistic and the hypothesis was tested using the multiple regression analysis and analysis of variance (ANOVA)

Table 1: Descriptive Statistics

	RGDP	TB	CD	CP
Mean	13.5148	13.5017	14.9724	13.2664
Median	13.4814	13.4716	15.0274	13.1786
Maximum	13.8390	14.7686	16.0814	14.4520
Minimum	13.2099	11.0000	13.8341	11.6989
Std. Dev.	0.2168	0.8157	0.8530	0.6419
Skewness	0.2387	-0.6185	-0.0675	-0.1130
Kurtosis	1.5086	4.1051	1.3232	2.9405
Jarque-Bera	3.0652	3.4398	3.5373	0.0683
Probability	0.2159	0.1790	0.1705	0.9664
Sum	405.4452	405.0509	449.1728	397.9925
Sum Sq. Dev.	1.3640	19.2998	21.1054	11.9505
Observations	30	30	30	30

Source: Authors Computation

In Table 1, the mean value is the average value of the series of Real Gross Domestic Product (RGDP), Treasury bill value (TB), Certificate of Deposit Value (CD) and value of commercial paper (CP) which are 13.5148, 13.50170, 14.97243 and 13.26642 respectively. The maximum and minimum values provided is an indication of significant variations as shown by the difference between two values for the proxies under consideration over the years of the study. There seems to be evidence of huge variance between the maximum and minimum values for Treasury Bill (TB), certificate of Deposit (CD) and Commercial Paper (CP) as reported while there is minimal

variance between RGDP over the years and this signifies little growth in the RGDP of Nigeria. The skewness of the variable RGDP shows positive, this indicates that the variable is positively skewed showing that its right tail is extreme. The variables TB, CD and CP are negatively skewed to the left. For kurtosis, the variable TB is leptokurtic in nature since its value is greater than 3, while the variables of RGDP, CD and CP are platykurtic in nature since its values are less than 3. The probability of Jarque-Bera statistics shows the goodness of fit. All the variables indicate normality as they have probability greater than 0.05 at the 5% chosen level of significance.

Table 2 shows the results of regression analysis for the effect of money market instruments on economic growth in Nigeria. The results showed that Treasury Bill has 0.231131, certificate of Deposit has 0.000851 and commercial papers has 0.022908. All these have positive effect on economic growth in Nigeria. The study also revealed that money market instruments positively affects economic growth in Nigeria ($\text{Adj } R^2 = 0.941450$, $F(3,30) = 156.4357$; $P < 0.05$). There was evidence that Treasury Bill has significant effect on economic growth in Nigeria ($TB = 0.231113$, $t\text{-test} = 14.20$, $P < 0.05$). Conversely, certificate of Deposit, Commercial Papers are not significant factors that affect changes in economic growth in Nigeria ($CD = 0.000851$, $t\text{-test} = 0.033063$, $P > 0.05$, $CP = 0.022908$, $t\text{-test} = 1.030456$, $P > 0.05$). This implies that Treasury Bill was the significant factor that affects changes in economic growth in Nigeria while certificate of Deposit and Commercial Papers were not significant factors that would affect changes in economic growth in Nigeria.

Table 2: Regression Result

Variable	Coefficient	Std Error	t-Stat	Prob.
C	9.7339	0.2115	46.0186	0.0000
TB	0.2311	0.0162	14.1991	0.0000
CD	0.0008	0.0257	0.0330	0.9739
CP	0.0229	0.0222	1.0304	0.3123
R^2	0.9475			
Adj. R^2	0.9414			
F-Statistic	156.4357			
Prob. (F-Stat)	0.0000			

Note: Dependent Variable: RGDP, *Significance at 5%. Source: Author's Computation

The adjusted R^2 measures the proportion of the changes in economic growth in Nigeria as a result of changes in Treasury Bill, Certificate of Deposit and Commercial Papers. The adjusted R^2 of 0.9415 explained about 94.15 per cent changes in economic growth in Nigeria, while the remaining 5.85 percent were other factors explaining changes in economic growth in Nigeria but were not captured in the model. The f-test of 156.4357 is statistically significant with $P < 0.005$. This indicates that the variables used in the

model have a goodness of fit which was a good predictor of the main variables and that Treasury Bill, Certificates of Deposit and Commercial Papers jointly explained changes in economic growth in Nigeria. The f-statistic of 156.4357 is statistically significant with $P < 0.05$. This indicates that on the overall, the statistical significance of the model showed that the null hypothesis that money market instruments do not have significant effect on economic growth in Nigeria was rejected. Thus, the alternative hypothesis that money market instruments have significant effect on economic growth in Nigeria was accepted at 5 percent level of significance.

Empirical findings from the test of hypothesis on effect of money market instruments and economic growth in Nigeria revealed that treasury bills, certificate of deposit and commercial papers have positive effect on economic growth in Nigeria. The f-statistic of 156.4357 is statistically significant at $P = 0.0000$, therefore, the study revealed that money market instruments have a significant effect on economic growth in Nigeria at 5 percent level of significance. In the aggregate model, our findings show that there is a direct effect between money market instruments and economic growth in Nigeria. This implies that money market instruments contribute maximally to the growth of the economy in Nigeria. This is because more investment in money market instruments would lead to increase outputs for both consumption and exports. The result from the study was in line with the work of Andrew and Deborah (2015) and Etale and Ayunku (2017) that reported positive relationship between money market instruments and economic growth in Nigeria. However, this was in contrast with the work of Akarara and Eniekeziemene (2018) and Ehigiamuose (2016) who found negative insignificant effect between money market instruments and economic growth.

5. Conclusion and Recommendations

Empirical discoveries from this study, concluded that money market instruments impact positively on Nigeria development as concluded by Obi in 2021. Based on analysis and statistical interpretation of empirical findings, we recommend as follows: Commercial paper is not well patronized due to high transaction cost associated with it, high transaction cost of commercial paper makes it unattractive to small companies, government should make laws that will reduce the transaction cost of commercial paper to make it investment attractive to small companies. Government through its fiscal and monetary policies should make interest rate earnable on Certificate of deposit investors friendly by reducing the tax rate applicable to such earnings to increase investment in certificate of deposit. It is also recommended that regulatory authorities should formulate and implement policies that will be friendly to investors in the money market. Government should provide a conducive financial environment that can provide access to lending opportunities among economic agents in the Nigerian financial system. Money market in Nigeria should be reformed to match up with current trend world-

wide and should also be internationalized to enable flow of foreign investment to the market.

References

- Akarara, E. A., & Eniekezimene, A. F. (2018). Money market instruments and growth of the Nigerian economy: An empirical analysis. *Pakistan Journal of Humanities and Social Sciences*, 6(1), 30-43.
- Akinwale, S.O. & Obagunwa, O.T. (2020). Money market instruments and commercial banks' deposits in Nigeria. *International Journal of Economics, Commerce and Management*, 8(1), 259-270.
- Andrew, O. A., & Deborah, O. O. (2015). Development in money market operations and economic viability in Nigeria. *Global Journal of Management and Business Research*, 13(9), 30-43.
- Ayuba, I.K. & Khan, S.M. (2019). Domestic debt and economic growth in Nigeria: An ARDL Bound test approach. *Economic and Business*, 3(1), 50-68.
- Bello, F. (2018). Monetary policy and banking sector reforms in the Nigerian economy. *Journal of Financial Economics*, 25(2), 50-68.
- Central Bank of Nigeria (2017). The Nigeria financial system at a glance. *Monetary Policy Department*. Abuja, Nigeria.
- David, G. T. (2018). The rate of interest and the new monetary theory of loanable funds. *The Creators of Inside Money*, 7(2), 63-76.
- Ehigiamosoe, U. K. (2016). The challenges of money market development and its impact on economic growth in low-income countries: Evidence from Nigeria. *National Institute of Legislative Studies, National Assembly Abuja*, 2(3), 1-23.
- Etale, L.M. & Ayunku, P.E. (2017). Does money market spur economic growth in Nigeria? *International Journal of Development and Economic Sustainability*, 5(7), 28-37.
- Evans, C. L., & Marshall, D. A. (2006). Economic determinants of nominal treasury yield curve. *Federal Reserve Bank of Chicago*, 71, 119-127.
- Faith, I. O., Hakeem, J. S., & Samuel, O. A. (2020). Impact of selected money market instruments on Nigerian economic growth. *Ilorin Journal of Human Resource Management (IJHRM)*, 4(1), 131-143.
- Fama, E. F. (1980). Banking in the theory of finance. *Journal of Monetary Economics*, 6(1), 39-58.
- Gurley, J. G., & Shaw, E. (1960). Money in a theory of finance. *The Economic Journal* 70(279), 568-569
- Haley, C. W., & Schall, L. D. (1973). *Theory of financial decisions*. New-York; McGraw-Hills Companies
- Igbinosa, S. O., & Aigbovo, O. (2016). The Nigerian money market and national economic development. *Journal of Business and Value Creation*, 4(2), 114-126.
- Ishola, O.P., Oni, A.S. & Kolapo, M.B. (2021). Impact of money market instruments on economic growth in Nigeria. *International Journal of Social Science and Human Research*, 4(4), 689-697.

- Iwedi, M., & Igbani, D. S. (2015). The nexus between money market operations and economic growth in Nigeria: An empirical investigation. *International Journal of Banking and Finance Research*, 1(2), 1-17.
- Keynes, J. M. (1936). *The general theory of employment, interest and money*. London: Macmillan.
- Marlyse, L. (2018). Effect of financial deepening on economic growth in Kenya. *International Journal of Business and Commerce*, 4(7), 1-50.
- Narayan, P.K. (2005). The saving and investment nexus for China: Evidence from Cointegration tests. *Applied Economics*, 37, 1979-1990.
- Ndugbu, M. O., Duruechi, A. H., & Ojiegbe, J. N. (2016). Money market instruments and bank performance in Nigeria. *Journal of Economics and Sustainable Development*, 7(10), 95-104.
- Nwakobi, P.C., Oleka, D.C. & Ananwude, A.C. (2019). Effect of financial deepening on economic growth in Nigeria: A time series appraisal (1986-2018). *Asian Journal of Advanced Research and Report*, 7(3), 1-9.
- Obi, C. O. (2021). Money market instruments and economic growth of Nigeria. *European Journal of Management and Marketing Studies*, 6(2), 150-165.
- Okwu, A.T., Obiwuru, T.C., Obiakor, R.T. & Oluwalaiye, O. (2016). Domestic debt and economic growth in Nigeria: Data-based evidence. *Greener Journal of Economics and Accountancy*, 5(1), 001-012
- Okpe, I. I. (2013). Money market on the Nigerian economic development. *Journal of Economics and Sustainable Development*, 4(5), 5-11.
- Orenuga. B. & Oyedokun, G.E. (2022). Financial intermediation and economic growth in Nigeria. *International Journal of Social Sciences and Management Review* 5(1), 132-148.
- Pal, R. (2018). The theory of interest rate. *International Journal of Social & Management Sciences*, 4(6), 82-96.
- Pavtar, A. (2016). The nexus between money market instruments and Nigeria's economic growth: A time series analysis. *Journal of Accounting and Finance Management*, 2(3), 22-39.
- Schumpeter, J. A. (1911). *The theory of economic development*. Cambridge Harvard University Press <https://www.jstor.org/stable/3487788>
- Singhania, N., Singh, A., & Prajapat, J. (2016). Study on commercial paper in Indian money market. *International Journal of Science Technology and Management*, 5(3), 88-94
- Uruakpa, P. C. (2019). Impact of money market reforms on economic growth of Nigeria (1990-2017). *Achieves of Business Research*, 7(SP), 122-134.
- Uwakaeme, O. S. (2015). Economic growth in Nigeria: An empirical investigation of determinants of the causal relationship (1980-2012). *American Journal of Economics*, 5(1), 9-20.
- Wicksell, K. (1893). Value, capital and rent. *The Scandinavian Journal of Economics*, 80(2), 129-134.